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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Constantin Von Altrock

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EXAMINER

TINKLER, MURIEL S

ART UNIT

PAPER NUMBER

3691

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/070,490	<b>Applicant(s)</b> VON ALTROCK ET AL.	
	<b>Examiner</b> MURIEL TINKLER	<b>Art Unit</b> 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-8, 10-14 and 16-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-8, 10-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This application has been reviewed. There have been no amendments submitted with the response filed on September 2, 2008. Claims 1-3, 9, 15 and 19 were previously cancelled. Claims 4-8, 10-14 and 16-18 are pending. The rejection(s) are as follows.

#### ***Response to Arguments***

1. Applicant's arguments filed September 2, 2008 have been fully considered but they are not persuasive. The Applicant argues that Kroll does not disclose or suggest using the ring buffer for data recovery during normal operation and that Kroll differs from either of the technical fields of O'Mara or Basch.
2. Regarding the disclosure of using the ring buffer for data recovery during normal operation: Kroll discloses the use of a ring buffer before, after and during updating procedures in column 6 (lines 53-67).
3. Regarding Kroll differing from either of the technical fields of O'Mara or Basch: In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, all three references disclose

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the act of receiving, collecting and storing information/data. In addition, the Kroll reference is searchable within class 705. Specifically, it is classified and searchable within in 705/405.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-8, 10-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Mara et al. (US 2002/0120559 A1) and Basch et al. (US 6,658,393 B1) in view of Kroll et al. (US 4,845,632), hereafter referred to as O'Mara, Basch and Kroll respectively.

6. Regarding claims 4 and 10, O'Mara et al. discloses:

- a method for determining an extent of a risk of a current transaction in the Abstract
- the transaction being fraudulent in the Background of the Invention, 1. Field of the Invention
- a computer controlled transaction system in figure 1 and paragraphs 7, 33 and 37.

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- receiving data on the current transaction data (or in real-time in paragraph 11) in a prediction model, or data elements for a rules based logic, in paragraphs 22-24, 27, and 44-46.
- identifying a means of payment used in preceding transactions in the prediction model in paragraphs 8 and 42.
- combining a limit (in paragraph 51) with a value in the prediction model for generating an output value that depicts the extent of the risk of the current transaction being fraudulent and initiating reactions to the current transaction as receiving a value from the merchant that exceeds expected values in the Abstract, paragraphs 18, 19, 69, determining a rule score and/or a risk score in paragraph 28, and performing risk calculations in figures 1 & 2, paragraphs 17-19, 41 and 58.
- reactions have different magnitudes corresponding to the output value that depicts the extent of the risk of the current transaction being fraudulent and the limit is essentially based on expert rules and the limit being specific for a type of transaction in paragraph 69.
- the value being specific for the current transaction, or real-time transactions in paragraph 11.
- and combining the limit and the value is performed in a floating manner so that the output value varies in accordance with an extent of the risk of the current transaction being fraudulent in paragraph 71.

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O'Mara et al. does not specifically disclose the value essentially based on a time series analysis of the preceding transactions with regard to the means of payment and the value being specific for the current transaction. Basch et al. teaches:

- risk value based on a time series analysis in a relational database (910) using a prediction model of the preceding transactions in column 20 (lines 4-39);
- with regard to the means of payment or how the account holder pays on the account in paragraphs Background of the Invention, Summary of the Invention, column 16 (lines 42-57) and column 18 (lines 30-49);
- the value being specific for the current transaction in the Abstract and column 8 (lines 13-39);
- fuzzy rules/sets in column 11 (lines 47-65) using software in column 10 (lines 1-15);
- a RAM cached database (or a buffer) in column 12 (lines 7-29);
- real-time processing in column 8 (line 51) through column 9 (line 12), column 13 (lines 24-46) and column 18 (lines 20-49); and,
- both historic and current transactions can be used in column 8 (lines 13-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify O'Mara to include time series calculations for a more detailed and accurate prediction of risk level.

O'Mara and Basch do not specifically disclose the use of a ring buffer. Kroll teaches the use of a ring buffer in column 6 (lines 52-67). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify

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O'Mara and Basch to include the use of a ring buffer because it provides quick access to memory.

7. Claims 5 and 11 discuss the system and method of claims 4 and 10, wherein the expert rules concern parameters which occur in statistically significant cumulative manner during fraudulent transactions. Claims 4 and 10 have been rejected based on the discussion(s) above. O'Mara discloses this in paragraphs 44-46.

8. Claims 6 and 12 discuss the system and method of claims 5 and 11, wherein the parameters relate to at least one element selected from the group consisting of an origin of a payment, an origin of a user, a branch of the current transaction, a beneficiary of the current transaction, a magnitude of the current transaction and a value of the current transaction. Claims 5 and 11 have been rejected based on the discussion(s) above. O'Mara discloses the use of a '30 Day Even Dollar Amount' as a data element in paragraph 44.

9. Claims 7 and 13 discuss the system and method of claims 4 and 10, wherein the time series analysis is implemented in the form of fuzzy logic rules. Fuzzy logic rules are described as, defining a limit for each transaction type that corresponds to the (user-specific) "risk readiness", in paragraph 22 of the specification by the applicant. Claims 4 and 10 have been rejected based on the discussion(s) above. While O'Mara does disclose the use of limits for predicting risk in paragraphs 10 and 51, O'Mara does not

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specifically disclose the use of time-series analysis. Basch et al. teaches the use of time series analysis in a relational database (910) using a prediction model of the preceding transactions in column 20 (lines 4-39). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify O'Mara to include time series calculations for a more detailed and accurate prediction of risk level.

10. Claims 8 and 14 discuss the system and method of claims 4 and 10, wherein the expert rules are implemented in the form of fuzzy logic rules. Claims 4 and 10 have been rejected based on the discussion(s) above. O'Mara discloses: the use of expert rules, or data elements for a rules based logic, in paragraphs 22-24, 27, and 44-46; and fuzzy logic in paragraphs 10 and 51.

11. Referring to claim 16, O'Mara discloses:

- a method which is implemented on a computer and which is provided for identifying and determining fraudulent transaction data in a computer-controlled transaction processing system Abstract, Background of the Invention '1. Field of the Invention', figure 1, paragraphs 7, 33 and 37.
- a prediction model for receiving current transaction data for processing the current transaction data or data elements for a rules based logic, in paragraphs 22-24, 27, and 44-46.



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- and for outputting at least one output value that depicts a probability of a fraudulent transaction as performing risk calculations in figures 1 & 2, paragraphs 17-19, 41 and 58.
- wherein, on the basis of stored data as determining a rule score and/or a risk score in paragraph 28.
- and expert rules concerning parameters which occur in a statistically significant cumulative manner during fraudulent transactions in paragraphs 44-46.
- especially with respect to the origin of the means of payment or user, or types of payments in paragraphs 8 and 42.
- to the branch, or contractual partner who requested the authorization, as the cardholder to authorizes the transaction in paragraph 12.
- the beneficiary of the transaction, as the merchant in the Abstract, Background of the Invention, Summary of the Invention and paragraph 37.
- as well as to the magnitude or value of the transaction and the prediction model combines a limit based on the expert rules in a floating manner in paragraphs 44 and 71.
- The limit specific for the type of transaction, with a value, which is essentially based on preceding transactions with regard to the same means of payment and which is specific for the current transaction, in order to generate the output value and which can be used to initiate reactions of different magnitude to the current transaction request instead of the definition of only one risk-threshold for

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authorization of the transaction as receiving a value from the merchant that exceeds expected values in the Abstract, paragraphs 18, 19, 69.

O'Mara et al. does not specifically disclose: that value is essentially based on a time series analysis of the preceding transactions with regard to the means of payment; the value being specific for the current transaction; a Neuro Fuzzy Interference Machine; and, a ring buffer. Basch et al. teaches:

- risk value based on a time series analysis in a relational database (910) using a prediction model of the preceding transactions in column 20 (lines 4-39);
- with regard to the means of payment or how the account holder pays on the account in paragraphs Background of the Invention, Summary of the Invention, column 16 (lines 42-57) and column 18 (lines 30-49);
- the value being specific for the current transaction in the Abstract and column 8 (lines 13-39);
- fuzzy rules/sets in column 11 (lines 47-65) and discloses that this logic is implemented using software in column 10 (lines 1-15);
- a RAM cached database (or a buffer) in column 12 (lines 7-29); and,
- both historical and current transactions can be used in column 8 (lines 13-29).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify O'Mara to include time series calculations for a more detailed and accurate prediction of risk level.

O'Mara and Basch do not specifically disclose the use of a ring buffer. Kroll teaches the use of a ring buffer in column 6 (lines 52-67). Therefore, it would have been obvious to

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a person having ordinary skill in the art at the time the invention was made to modify O'Mara and Basch to include the use of a ring buffer because it provides quick access to memory.

12. Claim 17 discloses the method of claim 16, wherein the time series analysis is implemented in the form of fuzzy logic rules. Claim 16 has been rejected based on the discussion(s) above. While O'Mara does disclose the use of limits for predicting risk in paragraphs 10 and 51, O'Mara does not specifically disclose the use of time-series analysis. Basch et al. teaches the use of time series analysis in a relational database (910) using a prediction model of the preceding transactions in column 20 (lines 4-39). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify O'Mara to include time series calculations for a more detailed and accurate prediction of risk level.

13. Claim 18 discloses the method of claim 16, wherein the expert rules are implemented in the form of fuzzy logic rules. Claim 16 has been rejected based on the discussion(s) above. O'Mara discloses: the use of expert rules, or data elements for a rules based logic, in paragraphs 22-24, 27, and 44-46; and fuzzy logic in paragraphs 10 and 51.

/Hani M. Kazimi/

Primary Examiner, Art Unit 3691

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